

REMARKS

In response to the Office Action mailed October 4, 2005, Applicants amended claims 1, 15, 18, 20, 31, 34 and 35. Applicants also amended the specification. Claims 1-35 are presented for examination.

The Examiner objected to the drawings. Applicants have amended the specification to obviate this objection. In particular, Applicants have added language that was disclosed in U.S.S.N. 08/854, 384 (now U.S. Patent No. 5,880,891), which was incorporated by reference. Applicants believe that this amendment to the specification obviates the objection to the drawings, and Applicants therefore request reconsideration and withdrawal of this objection.

The Examiner objected to the title of the application as not being descriptive. Applicants respectfully disagree with the Examiner. The title of the application is "Catadioptric Projection Objective With Adaptive Mirror And Projection". Applicants believe that this title is sufficiently descriptive and therefore request reconsideration and withdrawal of this objection. Should the Examiner wish to maintain the objection, Applicants ask the Examiner to explain why the title is not considered by the Examiner to be descriptive.

The Examiner rejected claims 1, 2, 4, 6-9, 14-16, 19, 32 and 35 under 35 U.S.C. §102(b) as being anticipated by, or under 35 U.S.C. §103(a) as being unpatentable over, Schaffer Jr. et al., U.S. Patent No. 4,993,813 (Schaffer). But, as amended, claims 1, 2, 4, 6-9, 14-16, 19, 32 and 35 cover objectives that are configured to transmit light from an object at an object plane to an image of the object at an image plane, the image of the object being smaller than the object. Schaffer does not disclose or suggest such objectives. Applicants therefore request reconsideration and withdrawal of the rejections based on Schaffer.

The Examiner rejected claims 1, 2, 4-6, 8, 14, 19-21 and 35 under 35 U.S.C. §102(b) as being anticipated by Spinhirne, U.S. Patent No. 4,393,093 (Spinhirne). However, as amended, claims 1, 2, 4-6, 8, 14, 19-21 and 35 cover objectives that are configured to transmit light from an object at an object plane to an image of the object at an image plane, the image of the object being smaller than the object. Spinhirne does not disclose such objectives. Thus, Applicants request reconsideration and withdrawal of this rejection.

The Examiner rejected claims 15-17, 31, 32 and 34 under 35 U.S.C. §102(b) as being anticipated by Humphrey, U.S. Patent No. 4,043,644 (Humphrey). However, as amended, claims 15-17, 31, 32 and 34 cover objectives that are configured to transmit light from an object at an object plane to an image of the object at an image plane, the image of the object being smaller than the object. Humphrey does not disclose such objectives. Thus, Applicants request reconsideration and withdrawal of this rejection.

The Examiner rejected claims 1, 2, 9-11 and 13 under 35 U.S.C. §102(b) as being anticipated by, or under 35 U.S.C. §103(a) as being unpatentable over, Endou et al., U.S. Patent No. 5,963,374 (Endou). But, as amended, claims 1, 2, 9-11 and 13 cover objectives that are configured to transmit light from an object at an object plane to an image of the object at an image plane, the image of the object being smaller than the object. Endou does not disclose or suggest such objectives. Applicants therefore request reconsideration and withdrawal of the rejections based on Endou.

The Examiner rejected claims 20-24, 26-28 and 30 under 35 U.S.C. §103(a) as being unpatentable over Unno, U.S. Patent No. 5,805,273 (Unno) in view of Koyama et al., U.S. Patent No. 5,793,473 (Koyama).

As amended, claims 20-24, 26-28 and 30 cover processes that include deforming a curved mirror by actuators or adjusting elements at only two to four pairs of action places with no more than one adjusting element per pair of action places.

The Examiner conceded that Unno does not disclose the processes covered by claims 20-24, 26-28 and 30, as originally filed. As amended, these claims are also not anticipated by Unno. Further, there is no suggestion to modify Unno to provide the processes covered by claims 20-24, 26-28 and 30.

Even if there were a suggestion to modify Unno using the teachings of Koyama, the result would not be the processes covered by claims 20-24, 26-28 and 30, at least because, like Unno, Koyama does not disclose a process that includes deforming a curved mirror by actuators or adjusting elements at only two to four pairs of action places with no more than one adjusting element per pair of action places.

Applicant : Wagner et al.
Serial No. : 10/759,964
Filed : January 17, 2004
Page : 12 of 12

Attorney's Docket No.: 17979-033001 / 98018CIPUS

Neither Unno nor Koyama, alone or in combination, discloses or suggests the objectives covered by claims 20-24, 26-28 and 30. There is no suggestion to combine these references to provide such objectives, and, even if the references were combined, the result would not be the objectives covered by claims 20-24, 26-28 and 30.


In view of the foregoing, Applicants request reconsideration and withdrawal of the rejection of claims 20-24, 26-28 and 30 under 35 U.S.C. §103(a).

Applicants believe the application is in condition for allowance, which action is requested.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 1/3/06


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